BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF CALIFORNIA

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Order Instituting Rulemaking to Implement the Commission's Procurement Incentive Framework and to Examine the Integration of Greenhouse Gas Emissions Standards into Procurement Policies	R.06-04-009

COMMENTS OF THE ENERGY PRODUCERS AND USERS COALITION AND THE COGENERATION ASSOCIATION OF CALIFORNIA ON THE FINAL WORKSHOP REPORT

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October 18, 2006

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Pursuant to the Assigned Commissioner's Ruling in this matter,[1] the Energy Producers and Users Coalition[2] and the Cogeneration Association of California[3] (EPUC/CAC) hereby file these comments on the Final Workshop Report issued by Staff on October 2, 2006.

I. INTRODUCTION

EPUC/CAC appreciate all of the time and resources which Staff has devoted to coordinating the workshop in this matter, and to synthesizing the discussion and the subsequent comments into a report. The Workshop Report reflects consensus of the stakeholders on many issues. The passage of SB 1368 resolved some of the remaining issues. But there remain several issues requiring clarification, confirmation or

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1 Issued October 5, 2006.

2 EPUC is an ad hoc group representing the electric end use and customer generation interests of the following companies: Aera Energy LLC, BP America Inc. (including Atlantic Richfield Company), Chevron U.S.A. Inc., Shell Oil Products US, THUMS Long Beach Company, and Occidental Elk Hills, Inc.

3 CAC represents the power generation, power marketing and cogeneration operation interests of the following entities: Coalinga Cogeneration Company, Mid-Set Cogeneration Company, Kern River Cogeneration Company, Sycamore Cogeneration Company, Sargent Canyon Cogeneration Company, Salinas River Cogeneration Company, Midway Sunset Cogeneration Company and Watson Cogeneration Company.

reconsideration in assuring that the implementation of the emission performance standard (EPS) will effectively prevent backsliding without causing material harm either to supply sufficiency or to price stability.

In addressing these issues, EPUC/CAC's comments first focus on four issues of highest importance to cogeneration resources:

1. Confirmation of the Staff's recommended methodology to correctly incorporate the cogenerator's total energy output when calculating an emissions rate.

2. Confirmation and clarification of the Staff's recommendation that deliveries by customer-owned generation to industrial loads under Section 218, which lie outside this Commission's jurisdiction, are not considered when assessing the screens as part of the EPS.

3. Clarification that the EPS cannot and should not be applied to bottoming-cycle cogeneration.

4. Interpretation of SB 1368 to provide that all existing gas-fired cogeneration, rather than a limited subset of these facilities, will be deemed in compliance under 8341(d)(1).

EPUC/CAC comments then address four other issues in the Workshop Report that would lead to greater ease of administration and effectiveness:

1. Clarification of the 60% capacity factor, which is variously characterized as annualized versus average annual.

2. Determination that where a single contract provides distinct products from multiple units, each product should be assessed for the screening criteria.

3. Confirmation of the Staff recommendation that 25 MW minimum size threshold is based on commitments to LSEs, not unit size.

4. Reconciliation with SB 1368's requirement that all existing combined-cycle gas powerplants will be deemed in compliance with the EPS.

While addressing those specific issues, EPUC/CAC's comments will also address the overarching issue of the impact of SB 1368. SB 1368 sets the basic framework for the Commission's development of an EPS, but it does not supply all of the detail necessary for its implementation. As discussed throughout these comments, the Commission has a degree of latitude in supplying this detail to ensure that the intent of the legislation is reflected in the final EPS regulations.

II. COGENERATION ISSUES

There are four major issues in the implementation of an EPS that are most important to cogeneration. These are:

1. Confirmation of the Staff's recommended methodology to correctly incorporate the cogenerator's total energy output when calculating an emissions rate.

2. Confirmation and clarification of the Staff's recommendation that deliveries by customer-owned generation to industrial loads under Section 218, which lie outside this Commission's jurisdiction, are not considered when assessing the screens as part of the EPS.

3. Clarification that the EPS cannot and should not be applied to bottoming-cycle cogeneration.

4. Interpretation of SB 1368 to provide that all existing gas-fired cogeneration, rather than a limited subset of these facilities, will be deemed in compliance under 8341(d)(1).

A. The Commission Should Confirm the Workshop Report's Recommendation of a Methodology for Incorporating the Cogenerator's Total Energy Output When Calculating an Emission Rate.

The Workshop Report properly selected the methodology advocated by EPUC/CAC for calculating the emission rate for a cogenerator. This methodology converts the thermal energy produced by a cogenerator into its equivalent electrical energy, using a conversion factor. This states the total energy produced by the

cogeneration facility in kilowatt-hours and then allows the calculation of an emission rate per kilowatt-hour.

This methodology is squarely consistent with SB 1368. Public Utilities Code §8341(d)(3) requires as follows:

> *The commission shall establish an output-based methodology to ensure that the calculation of emissions of greenhouse gases for cogeneration recognizes the total usable energy output of the process, and includes all greenhouse gases emitted by the facility in the production of both electrical and thermal energy.*

The methodology recommended by Staff meets all of these requirements. The methodology examines the output of a generating facility to determine the EPS, rather than looking at the energy input to a facility. The methodology also ensures that the total usable energy output for a cogeneration facility is reflected in the calculation.

Beyond its clear compliance with SB 1368, Staff's recommended methodology should be confirmed for several reasons. First, it is important to establish a specific methodology. Sanction by the Commission of one methodology promotes consistency and some regulatory certainty in contracting and permitting. Second, the EPUC/CAC methodology is simple and easy to apply. In this docket, where the Commission is striving to expeditiously adopt an interim mechanism to prevent "backsliding," administrative simplicity is important.

The EPUC/CAC methodology was generally accepted by all parties except San Diego Gas & Electric which proposed another methodology. The SDG&E method calculates the emissions of supplying the thermal energy to the industrial host if the cogeneration process were eliminated, and the thermal energy were supplied separately from a conventional boiler. The SDG&E method calculates the estimated

emissions from a boiler assuming an 80% efficiency of the boiler. This is another means of making the engineering calculation. Hypothesizing a replacement boiler, however, does not reflect the reality of producing the thermal energy from the same energy stream as the electricity, which is the essence of cogeneration. In addition, it requires an assumption about the efficiency of the replacement boiler. This alternate method adds some complexity to the process which is not desirable in an expedited, interim program. The Commission should adopt Staff's recommended methodology, which relies upon actual GHG emissions and the measured useful energy output of the cogeneration facility.

B. The Commission Should Confirm That Deliveries by Customer-Owned Generation to Industrial Loads On-Site Under Section 218 Are Not Considered When Assessing the Screens as Part of the EPS.

Industrial customers with self-generation deliver electricity to their own loads on-site or to adjacent customers "over the fence" pursuant to PU Code § 218. These deliveries are by definition outside the scope of the Commission's jurisdiction.[4] Some of these customers also contract to deliver surplus energy to an LSE, and these LSE deliveries do fall within the scope of this proceeding. Given these unique circumstances, it is important that the Commission craft its EPS to recognize the distinction between private and grid deliveries.

How an EPS may be imposed on such surplus sales to LSEs has been one of EPUC/CAC's fundamental concerns throughout this process. Grid sales to LSEs from customer generation should, like grid sales by merchant generation, be tested against the Commission's EPS. The application of the EPS and its screens, however, should

[4] Brief on Jurisdictional Issues of CAC and EPUC at 2-3, filed June 30, 2006.

be determined based solely on the characteristics of the customer generator's deliveries to the grid. The electricity generated and used by a customer on-site should not be considered in applying the EPS.

This principle of considering only deliveries to LSEs determines how the screens for an EPS are constructed. Deliveries by industrial self-generation to load on-site should not be included in any screens. EPUC/CAC support the determination by Staff in the Workshop Report that on-site delivery is not part of an LSE's commitment.[5] As Staff explains, *"we cannot conclude that it falls within either the Commission's purposes in establishing the EPS or the definition of covered resources in SB 1368."* To give full effect to this principle, however, the screens for baseload capacity factor and for minimum size should each be based on a customer generator's net grid deliveries to LSEs, not on the characteristics of the underlying facility. Deliveries by industrial self-generation to load on-site should not be included in any screens.

This approach is also consistent with SB 1368. Senate Bill 1368 contains a number of provisions indicating that the EPS should be applied based on deliveries to LSEs, not on the underlying resource. For example, Section 8341(a) refers to baseload generation being supplied under a commitment. This suggests that baseload is a characteristic of the commitment, not of the underlying resource. Subdivisions (b)(1) and (b)(3) have similar language.

For all of these reasons, the Commission should adopt a clarification to the Staff Worskhop report, providing as follows:

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[5] Workshop Report at 30, in discussion of question 11a.

The EPS screen shall be applied to customer generation facilities based solely on the generator's collective grid deliveries to LSEs and shall not include electricity deliveries under Section 218.

C. The EPS Cannot Reasonably Be Applied to Bottoming-Cycle Cogeneration Technology.

Bottoming-cycle cogeneration technology generates electricity using a heat recovery steam generator, which generates electricity from waste heat produced by an industrial process. Without this technology, the industrial waste heat would otherwise be exhausted to the atmosphere. In other words, there are no emissions associated with the generation of electricity using a bottoming-cycle generator; emissions are instead associated with the underlying industrial process. Indeed, depending upon the final implementation of AB 32, these emissions likely will be treated as industrial sector emissions. For these reasons, the EPS cannot and should not be applied to electricity produced by bottoming-cycle technology.

Bottoming-cycle technology is employed in oil and gas producing and refining operations. This process, for example, is used in the process of calcining petroleum coke from the heavy residual oil. The industrial process of calcining coke is not a generating process and is not within the scope of the EPS that the Commission will apply to Load Serving Entities (LSEs). The heat produced from that calcining process, however, may be used to generate electricity that may be sold to an LSE. It would be both administrative cumbersome and outside the scope of the Commission's authority to attempt to allocate the emissions from the calcining process to the electricity byproduct that is produced. To eliminate this uncertainty and ease administration, the Commission should clarify that such bottoming-cycle processes as part of an industrial process are not subject to the EPS. This is not a request for an exemption, but rather a

clarification as to what is included within the definition of "power plants" as covered by SB 1368.

EPUC/CAC concede, however, that there may be circumstances in which supplemental firing is used to enhance the performance of bottoming-cycle facilities. Indeed, federal regulations setting requirements for "qualifying facilities" differ where supplemental firing of these facilities occurs.[6] In these cases, any resulting emissions attributable to the supplemental firing may be considered in developing an emissions rate for the cogeneration facility.

D. SB 1368 Should Be Interpreted to Provide that All Existing Gas-Fired Cogeneration, Rather than a Limited Subset of these Facilities, Will be Deemed in Compliance Under 8341(d)(1).

Senate Bill 1368 provided what amounts to an exemption for certain existing generation facilities. Section 8341(d)(1) states:

> *All combined-cycle natural gas powerplants that are in operation, or that have an Energy Commission final permit decision to operate as of June 30, 2007, shall be deemed in compliance with the greenhouse gases emissions performance standard.*

Consequently, while the EPS will apply to these facilities, they will be deemed compliant.

Section 8340(b) defines a "combined-cycle natural gas" powerplant as a plant that "*employs a combination of one or more gas turbines and steam turbines in which electricity is produced in the steam turbine from the lost waste heat from one or more of the gas turbines*." Taken out of context, this definition would oddly include a limited subset of gas-fired cogeneration but would exclude other, equally efficient facilities. It would include in the exemption those facilities that use some or all of their waste heat to

[6] *See* 16CFR §292.205(b).

generate electricity. It might be read to exclude those cogeneration facilities that use their waste heat for industrial purposes, such as enhanced oil recovery steamflood or refining operations, rather than using the waste heat to generate electricity through a HRSG. Likewise, as discussed above, the definition arguably would exclude bottoming-cycle cogeneration, such as calciners, because these facilities do not use any "gas turbines."

The language of the statute can be simply reconciled to provide that all gas-fired cogeneration facilities operating or permitted by June 30, 2007, will be deemed in compliance with the EPS. Section 8341(d)(8) provides:

> *In developing and implementing the greenhouse gases emission performance standard, the commission shall consider and act in a manner consistent with any rules adopted pursuant to Section 824a-3 of Title 16 of the United States Code.*

Section 824a-3 is the statute that established the framework for cogeneration under the Public Utility Regulatory Policies Act of 1978 (PURPA). Regulations under PURPA were promulgated by the Federal Energy Regulatory Commission (FERC) in 18 CFR Part 292. Notably, nothing in the statute or regulations provides a basis for distinguishing among different types of cogeneration facilities if the facilities meet the operating and efficiency standards established by FERC.

To maintain consistency with federal law and SB 1368, the Commission should adopt a clarification to the Staff's recommendation. It should provide:

> **All existing gas-fired cogeneration and bottoming-cycle cogeneration will be deemed in compliance with the EPS provided that the facility meets all PURPA efficiency and operating standards.**

Adopting this provision would be consistent with basic principles of statutory interpretation. The first step in determining the Legislature's intent is to examine the actual words of the statute, giving them a plain and common sense meaning.[7] Statutes must be harmonized, however, both internally and with each other, to the extent possible.[8] Finally, the law provides state agencies the authority to adopt regulations "*to implement, interpret, make specific or otherwise carry out the provisions of the statute*," which are "*consistent and not in conflict with the statute and reasonably necessary to effectuate the purpose of the statute*."[9] Applying these principles, the Commission should adopt the proposed refinement of the EPS stated above.

III. OTHER ISSUES

There are four other issues in the Workshop Report that would lead to greater ease of administration and effectiveness:

1. Clarification of the 60% capacity factor, which is variously characterized as annualized versus average annual.

2. Determination that where a single contract provides distinct products from multiple units, each product should be assessed for the screening criteria.

3. Confirmation of the Staff recommendation that 25 MW minimum size threshold is based on commitments to LSEs, not unit size.

4. Reconciliation with SB 1368's requirement that all existing combined-cycle gas powerplants will be deemed in compliance with the EPS.

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7 Mercer v. Dept of Motor Vehicles, 53 Cal. 3d 753, 763 (1991).

8 Moyer v. Workmen's Comp. Appeals Bd., 10 Cal. 3d 222, 230 (1973).

9 Government Code § 11342.

A. The Commission Should Clarify the Definition of Capacity Factor Employed in the EPS Screen.

The Commission should clarify how the capacity factor will be determined for purposes of the baseload screen. Senate Bill 1368 defines "baseload generation" based on an *"annualized"* capacity factor. The Workshop Report also uses the term *"annualized"* capacity factor in several places.[10] The Workshop Report also uses the term *"average annual"* capacity factor when discussing the capacity factor screen.[11] These two terms could be interpreted differently, and the Commission should clarify how the capacity factor will be determined. EPUC/CAC recommend defining the statutory term *"annualized"* to mean *"average annual."* The term *"average annual"* suggests summing the total annual energy deliveries of a resource, averaging them over the year, and then dividing that average by the plant's maximum permitted capacity to determine a capacity factor. In particular, the Commission should revise or reference the language in the straw proposal in Paragraphs 4(c) and 5(c).

B. The EPS Should be Applied on a Unit Basis in Cases Where Two or More Units in a Generating Station are Used for Different Purposes.

The Workshop Report states that where a single contract covers more than one underlying resource, each individual resource must meet the EPS.[12] This statement should be expanded so that not only must each resource meet the EPS, but also each unit is assessed separately as to whether it passes the screens. If each underlying resource provides a separate, differentiated product, then each resource and each product should be separately assessed to determine whether it passes the screens.

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[10] *E.g.*, see p. 29, answer to question 10.

[11] *Straw Proposal*, ¶¶ 4(c), 5(c).

[12] Workshop Report at 28, discussion of question 9; Final straw proposal, ¶ 7(b).

Consider the following example. A multi-unit facility may enter into one contract with an LSE. The contract could provide for 50 MW of energy at an 80% capacity factor from Unit I, and a 20 MW peaking product, not to exceed a 30% capacity factor, from Unit II. The contract for the production from Unit I would pass the screens, and the EPS would be applied to Unit I. However, the product from Unit II would not pass the screens for either minimum size or baseload capacity factor. The Workshop Report should be clarified to provide as follows:

> **Where a single contract provides for separate energy delivery from two or more units, and each unit is contracted to deliver separate products, each unit will be separately assessed to determine whether the EPS should be applied.**

C. The Commission Should Clarify that the 25 MW Screen is Based on Deliveries to the LSE.

The Workshop Report is clear in several places that the 25 MW minimum size screen is based on commitment by LSE, not the size of the underlying unit. At page 31, it states: "*staff recommends that specified **long-term contracts and commitments of 25 MW or greater** delivered to the grid be required to go through the gateway screen*."[13] Likewise, at page 25, Staff states that "*[b]y limiting inclusion of covered resources to LSE commitments of 25 MW or greater, staff intends to reduce the burden of compliance with an EPS and to focus attention on LSE's long-term baseload commitments rather than peaking or shaping activities required for reliability*." This approach, EPUC/CAC agree, is the most reasonable approach. There are, however, other places where the Report uses different language. For instance, at

[13] Workshop Report at 31.

question 11(c),[14] the Report states that the 25 MW screen would be based on the "*committed underlying resource*." These differences should be corrected so that it is clear that the 25 MW threshold applies to commitments of a resource to LSEs, not the size of the underlying unit.

D. The Commission Must Reconcile Its Regulations with SB 1368's Requirement to Deem Existing Combined-Cycle Gas Powerplants in Compliance with the EPS.

The Staff Workshop Report observes the requirement in SB 1368 that "…*[a]ll combined-cycle natural gas powerplants that are in operation, or that have an Energy Commission final permit decision to operate as of June 30, 2007, shall be deemed to be in compliance with the greenhouse gases emission performance standard*."[15] The Staff recommends, however, that these plants be deemed in compliance at the "*onset of the EPS program*," but should be subjected to the EPS review upon repowering or recontracting.[16] The statute makes no such distinction. It does not state that these plants should be "deemed in compliance" only until a new contract is executed.

While not stated, Staff likely relies on the definition of "long-term financial commitment" in Section 8340(j), which defines this term as "*a new ownership investment in baseload generation or a new or renewed contract with a term of five or more years.*…" This logic, however, leads to unreasonable and discriminatory results.

The proposed interpretation would discriminate between utility and non-utility facilities. An existing utility facility would be subjected to the EPS only if the facility is repowered. In contrast, an existing non-utility facility would be subjected to the EPS if a

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[14] *Id.*

[15] Workshop Report at 21.

[16] Workshop Report at 22.

new contract were executed with the facility, regardless of whether the facility has been modified or repowered in any way. The proposed interpretation of Section 8341(d)(1), without any basis, unreasonably favors utility-owned generation relative to non-utility generation.

If Section 8341(d)(1) is read in a straightforward manner, no such discrimination would occur. Any existing combined-cycle gas powerplant – whether utility or non-utility owned – would be deemed in compliance unless additional, permitted changes to the facility were undertaken. For these reasons, the Commission should provide that the EPS will not apply to "new" contracts for "existing" facilities unless a permitted modification to the facility has been undertaken.

Such an interpretation also gives effect to SB 1368's language deeming existing CCGTs to be in compliance. SB 1368 in its definition of "long-term financial commitment" states that the EPS does not apply to existing contracts, regardless of the underlying technology. The EPS would apply to all new contracts with existing units, except that the "deemed in compliance" language must be given effect. The only interpretation which gives effect to that language and that differentiates existing CCGTs from all other existing units is to hold that new contracts with existing CCGTs are deemed to be in compliance.

IV. THE COMMISSION HAS AUTHORITY TO SUPPLY DETAILS IN FILLING IN THE SB 1368 FRAMEWORK

Clearly, any EPS must meet the requirements set by SB 1368. But SB 1368, like any landmark policy-setting legislation, did not provide all the details for the implementation of an EPS. Additional details contained in the Staff Workshop Report are necessary for the implementation of an EPS and to promote efficient and cost-

effective carbon mitigation. The Commission does have the authority to fill in the blanks and add details that are consistent with SB 1368.

State agencies have the authority to adopt regulations "*to implement, interpret, make specific or otherwise carry out the provisions of the statute*," which are "*consistent and not in conflict with the statute and reasonably necessary to effectuate the purpose of the statute*."[17] Agencies are *"empowered to fill up the details of the enabling legislation."*[18] The Helene Curtis court refers to this authority as "gap-filing."

The details to be added by the Commission as recommended by the Staff Workshop Report, as well as the recommendations offered in these comments, are gap-filling. Describing how the screens for baseload generation and minimum size are applied to contracts, for example, are filling in the details of the basic statutory structure. The Commission should use its authority within reasonable bounds to ensure the reasonable, efficient and effective application of the EPS.

V. LEGAL ARGUMENTS REGARDING EXCLUSION OF QFs ARE INCORPORATED BY REFERENCE

EPUC/CAC have previously filed a brief providing the legal basis for declaring QFs are excluded from the coverage of the EPS. EPUC/CAC renew such arguments and incorporate them by reference here.

VI. CONCLUSION

EPUC/CAC have suggested revisions to the Workshop Report to ensure that the EPS is applied equitably to cogeneration, and to promote administrative ease and

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[17] Government Code § 11342.

[18] Masonite Corp. v. The Superior Court of Mendocino County, 25 Cal.App.4th 1045, 1053 (1994); Helene Curtis, Inc. v. Assessment Appeals Bd. of Los Angeles County, 76 Cal.App.4th 124, 129 (1999).

effectiveness. Based on those comments, EPUC/CAC make the following recommendations:

1. The Commission should adopt the methodology proposed by EPUC/CAC and supported by the Workshop Report for the inclusion of thermal energy output in the calculation of a cogenerator's emission rate.
2. A clarification should be added to the Straw Proposal which states:

   > The EPS screen shall be applied to customer generation facilities based solely on the generator's collective grid deliveries to LSEs and shall not include electricity deliveries under Section 218.

3. The Workshop Report should be clarified to state that all existing gas-fired cogeneration and bottoming-cycle cogeneration will be deemed in compliance with the EPS, including re-contracting, provided that the facility meets all PURPA efficiency and operating standards.

4. The baseload capacity screening characteristic should be based on the *average annual* capacity factor of the commitment.

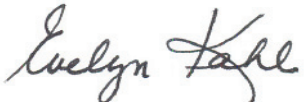
5. The Workshop Report's discussion of contracts covering multiple sources should be clarified to state:

   > Where a single contract provides for separate energy delivery from two or more units, and each unit is contracted to deliver separate products, each unit will be separately assessed to determine whether the EPS should be applied.

6. The Workshop Report should make clear that the 25 MW screen is based on deliveries to the LSE, not on the underlying resource.

October 18, 2006

Respectfully submitted,



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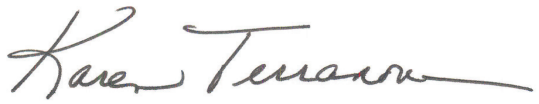
CERTIFICATE OF SERVICE

I, Karen Terranova hereby certify that I have on this date caused the attached **Supplemental Comments of the Energy Producers & Users Coalition and the Cogeneration Association of California on the Final Workshop Report** in R06-04-009 to be served to all known parties by either United States mail or electronic mail, to each party named in the official attached service list obtained from the Commission's website and pursuant to the Commission's Rules of Practice and Procedure.

Dated October 18, 2006 at San Francisco, California.



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